

Overview from FEMP's Sustainable Federal Fleets Program

U.S. DEPARTMENT OF
ENERGY

Energy Efficiency &
Renewable Energy



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Federal Energy Management Program (FEMP)

DOE Agency Meeting

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- FEMP overview
- The overarching goal
- Reducing petroleum consumption
- Using alternative fuel
- Acquiring alternative fuel vehicles
- Reporting
- DOE fleet energy performance
- Introduction to FEMP's Sustainable Federal Fleets website

Mission:

Assist Federal agencies with meeting or exceeding requirements for reducing fleet petroleum consumption

- Understanding and meeting Federal requirements
 - Guidance
 - Handbook
 - FAST system maintenance, upgrades, and training
- Analysis and tools
 - Fuel consumption dashboard (FleetDASH)
 - Geographic analysis of fleet fueling patterns, for facilitating development of new alternative fuel infrastructure

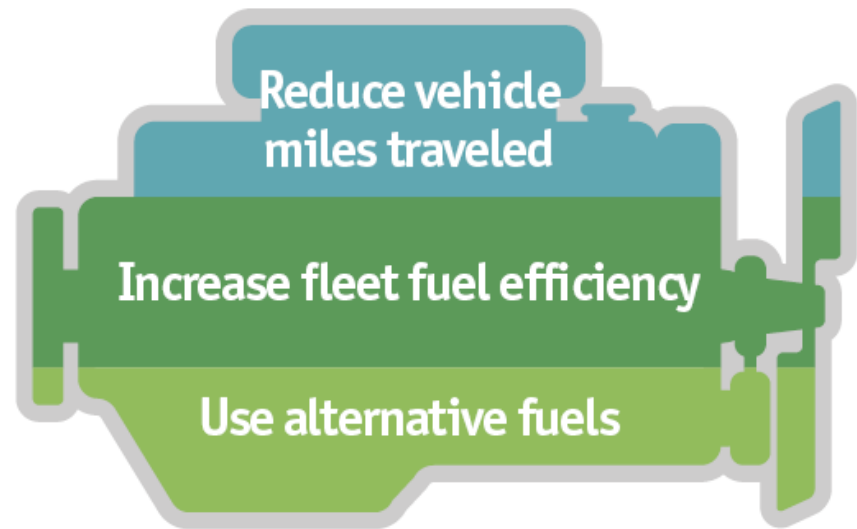
- Technical assistance
 - Alternative fuel vehicle selection and placement (NOVA)
- Education and communication
 - federalfleets.energy.gov
 - Federal Fleet Files e-newsletter
 - INTERFUEL working group

- Guidance
 - Guidance on Federal Fleet Management
 - https://federalfleets.energy.gov/sites/default/files/static_page_docs/fleetguidance_13514.pdf
- Handbook
 - Comprehensive Federal Fleet Management Handbook
 - https://federalfleets.energy.gov/sites/default/files/static_page_docs/eo13514_fleethandbook.pdf
- federalfleets.energy.gov
 - FEMP's Sustainable Federal Fleets website
 - <https://federalfleets.energy.gov/>
- Alternative Fuel Station Locator
 - AFDC, Alternative Fuels and Advanced Vehicles Data Center
 - <http://www.afdc.energy.gov/afdc/locator/stations/>

- The overarching goal: Reduce petroleum consumption
 - Why?
 - Reduce greenhouse gas emissions
 - E.O. 13514 greenhouse gas reduction targets
 - Reduce dependence on foreign oil imports
 - Insulate against price volatility of petroleum, thereby reducing costs

- Petroleum reduction requirements
 - Reduce petroleum consumption by 30% between 2005 and 2020 (2% per year)
 - E.O. 13423 and E.O. 13514
 - EISA 2007, section 142

- Driving Principles of Petroleum Reduction
 - Reduce vehicle miles traveled
 - Increase fleet fuel efficiency
 - Use alternative fuels



- Alternative fuel consumption requirements
 - Increase alternative fuel consumption by 159.4% between 2005 and 2015 (10% per year compounded)
 - E.O. 13423
 - EISA 2007, section 142 (less stringent requirement)
 - Dual-fuel vehicles must operate on alternative fuel unless a vehicle receives a waiver from DOE
 - EPLA 2005, section 701
 - Vehicle may receive waiver if no alternative fuel within 5 miles or 15 minutes from specified vehicle location (typically garage location)
 - Covered Federal fleet fueling centers must install at least one renewable fuel pump (E85, B20 or greater, or electricity from renewable sources)
 - EISA 2007, section 246

- What are AFVs?
 - Dedicated alternative fuel vehicles
 - Dual-fuel vehicles
 - Hybrid vehicles
 - Low greenhouse gas-emitting vehicles (only where no access to alternative fuel)
 - Others

- Requirements for acquiring AFVs
 - 100% of light-duty and medium-duty passenger vehicle acquisitions must be low greenhouse gas-emitting vehicles
 - EISA 2007, section 141
 - 100% of light-duty vehicle acquisitions must be AFVs by end of 2015
 - Presidential Memorandum on Federal Fleet Performance, May 2011
 - 75% of covered light-duty vehicle acquisitions must be AFVs
 - EPA 1992, section 303
 - AFVs must be located where they have access to the appropriate alternative fuel
 - Presidential Memorandum on Federal Fleet Performance, May 2011
 - Agencies must achieve their optimal vehicle inventory (number and type of vehicles) by end of 2015
 - Presidential Memorandum on Federal Fleet Performance, May 2011

- Strategic approach to maximizing petroleum reductions through AFV selection and placement
 1. Where alternative fuel is available, select a dedicated alternative fuel vehicle or dual-fuel vehicle, and operate on the appropriate alternative fuel
 2. Where alternative fuel is not available, select a petroleum-powered hybrid vehicle or low greenhouse gas-emitting vehicle

- Reporting requirements
 - January
 - OMB Sustainability and Energy Scorecards (for previous fiscal year)
 - February 15
 - Agency reports on compliance with EAct requirements due to Congress and posted on public website
 - February
 - FAST
 - Results of agency vehicle allocation methodology (VAM)
 - » Due date to be confirmed for 2013
 - June
 - FAST
 - Alternative fuel waiver requests (EAct 2005, section 701)
 - Federal fleet fueling centers (EISA 2007, section 246)
 - July
 - OMB mid-year scorecards
 - October – December 15
 - FAST
 - Fuel consumption
 - Vehicle inventory and acquisitions
 - Fleet-related costs
 - Future-year planning

Petroleum reduction

- **5.16% decrease** from FY 2005 baseline (compliance threshold for FY 2011 was **12%** decrease; Federal fleet averaged 1.91% increase)
 - **0.23%** increase from FY 2010 (Federal fleet averaged 1.01% increase)
- DOE accounted for **2%** of Federal Government's total petroleum consumption

Alternative fuel increase

- **152.06% increase** from FY 2005 baseline (compliance threshold for FY 2011 was 77.16% increase; Federal fleet averaged 87.28% increase)
 - **3.81%** decrease from FY 2010 (Federal fleet averaged 11.57% increase)
- Alternative fuel accounted for **18.32%** of DOE's total covered fuel consumption (compliance threshold is 5%; Federal fleet averaged 3.68%)
- DOE accounted for **13%** of Federal Government's total alternative fuel consumption

Alternative fuel utilization in dual-fueled vehicles

- Non-waived, dual-fueled vehicles operated on alternative fuel **59%** of the time (Federal fleet averaged 19%)
 - **1,114,951 GGE** of alternative fuel consumed in non-waived, dual-fueled vehicles; **3,840** non-waived, dual-fueled vehicles; annual alternative fuel consumption per non-waived, dual-fueled vehicle of **290 GGE**; DOE average annual total fuel consumption per vehicle of **493 GGE**
- **22%** of dual-fueled vehicles received waivers for FY 2012 (Federal fleet averaged 49%)

Alternative fuel vehicle acquisitions

- Alternative fuel vehicle acquisitions and credits equaled **171%** of total covered vehicle acquisitions (compliance threshold is 75%)
 - **1,145** alternative fuel vehicle acquisitions and credits; **669** total covered vehicle acquisitions

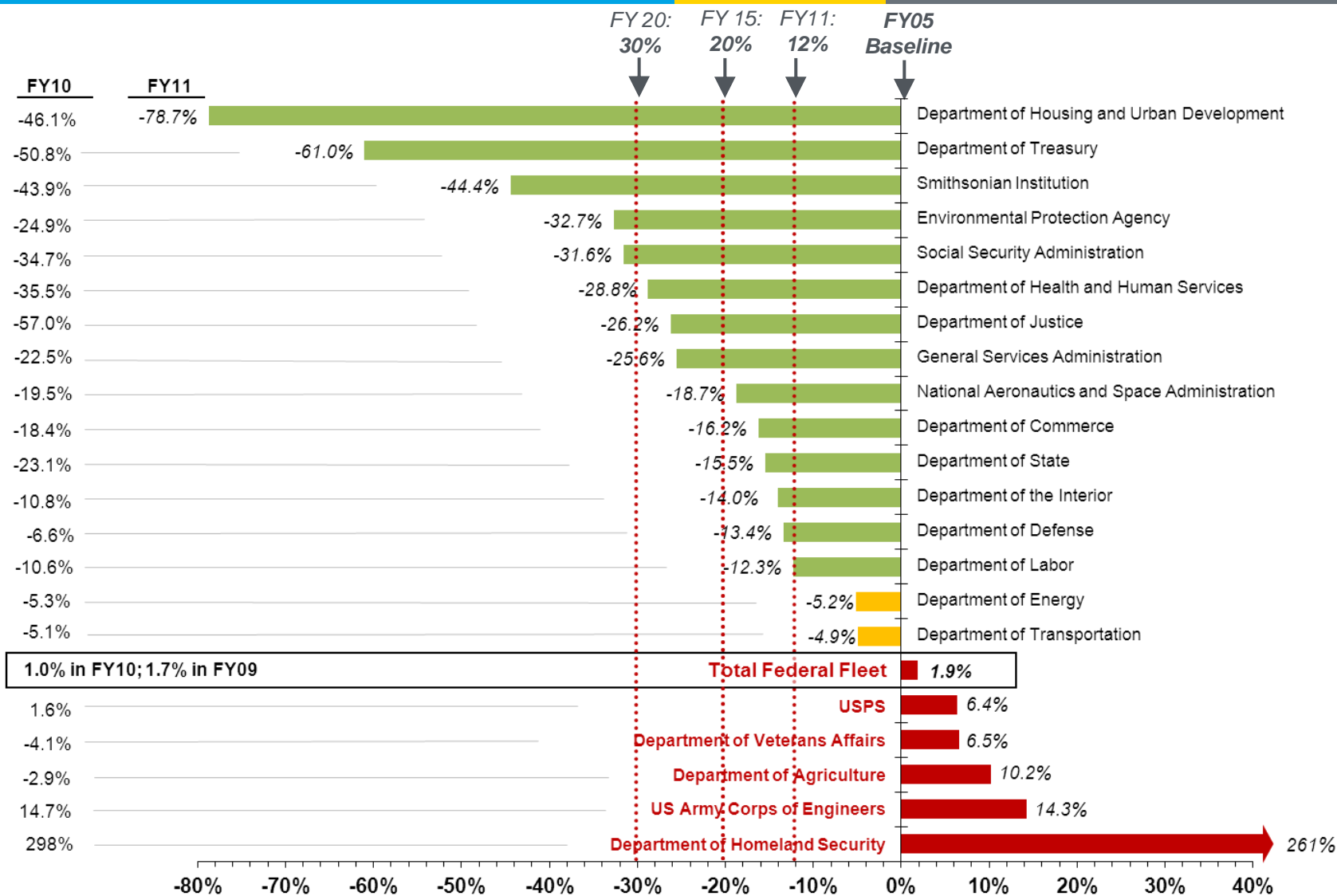
Low greenhouse gas-emitting vehicle acquisitions

- **8.4%** of covered vehicle acquisitions were low greenhouse gas-emitting vehicles (compliance threshold is 100%; Federal fleet averaged 25.2%)
 - **4.2%** of vehicles were self-exempted by DOE (Federal fleet averaged 18.9%)

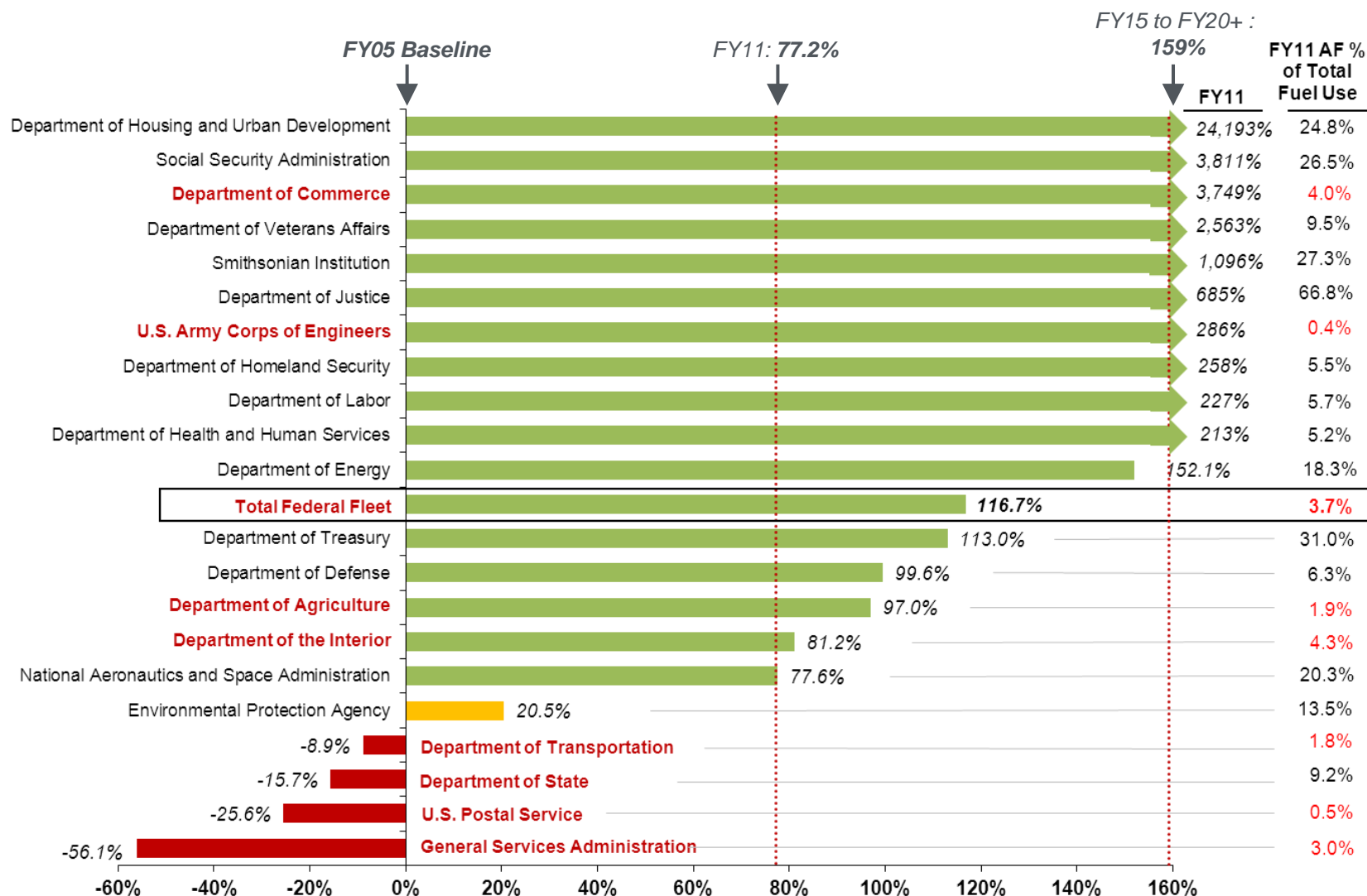
Renewable fuel availability at agency fleet fueling centers

- **4 out of 4 (100%)** DOE fleet fueling centers have renewable fuel available (compliance threshold is 100%; Federal Government averaged 66%)

Change in Petroleum Consumption, 2005-2011



Change in Alternative Fuel Consumption, 2005-2011



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